

Notice of Allowability

Application No.

10/007,886

Examiner

Brian L. Albertalli

Applicant(s)

MA ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 20 January 2005.
2. ☒ The allowed claim(s) is/are 1-5,7-13,15-17 and 19-21.
3. ☒ The drawings filed on 05 November 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with James A. Lamb (Reg. No. 38,529) on May 19, 2005.

The application has been amended as follows:

In claim 1, line 1, after "speech", add --recognition--.

Response to Amendment

The amendments to the claims have been entered. Claims 1-5, 7-13, 15-17, and 19-21 are currently amended, and claims 6, 14, and 18 are canceled.

Response to Arguments

Applicant's arguments, see pages 10-11, filed January 20, 2005, with respect to claims 1, 10, 12, and 13 have been fully considered and are persuasive. The rejections of claims 1, 10, 12, and 13 have been withdrawn.

Oath/Declaration

The oath submitted January 20, 2005 overcomes the objections made in the previous Office Action. The objection to the oath is withdrawn.

Specification

The amendments to the specification overcome the objections made in the previous Office Action. The objections to the specification are withdrawn.

Allowable Subject Matter

Claims 1-5, 7-13, 15-17, and 19-21 are allowed.

The following is an examiner's statement of reasons for allowance:

With regard to claims 1, 10, 12, and 13, as discussed in the Applicant's arguments (pages 10-11), the prior art of records fails to teach or suggest the steps of *detecting an inter-sentence pause, and finding a particular non-speech characterization that most closely matches the characterization of the inter-sentence pause*. The applied prior art (Narayanan) uses the characterization of non-speech audio to adapt both the speech and non-speech models, and does not find one particular non-speech (noise) characterization to update. Additionally, the prior art of record generally teaches that any adjustments to the non-speech model are performed by replacing (updating) the entire non-speech model. This is substantially different than finding a particular non-speech audio characterization, as in the nth mixture component of a Gaussian mixture

model which characterizes the non-speech audio, and updating only that one characterization.

Therefore, claims 1, 10, 12, and 13, are allowable over the prior art of record.

Claims 2-5, 7-9, 11, and 15-21 depend from one of claims 1, 10, 12, and 13, and thus are also allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakatsuka (U.S. Patent Application Publication 2002/0062212) disclose a method of updating a non-speech model with non-speech audio collected before a user begins to speak. Lee et al. (U.S. Patent 5,649,057) disclose a system which builds a single non-speech HMM during training. Zhao (U.S. Patent 5,664,059) disclose a method of updating a set of Gaussian mixture models by updating the mean of a particular mixture. Goldberg et al. (U.S. Patent 5,970,446) disclose a method of determining a non-speech model which is closest to collected non-speech audio. Gong

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(U.S. Patent 6,418,411) discloses a method of building a noise model prior to recognizing speech data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L Albertalli whose telephone number is (571) 272-7616. The examiner can normally be reached on Mon - Fri, 8:00 AM - 5:30 PM, every second Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BLA 5/19/2005



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PRIMARY EXAMINER